

Table B.1. Major Disturbances and Unusual Occurrences, Year-to-Date through August 2005

Date	Utility/Power Pool (NERC Region)	Time	Area Affected	Type of Disturbance	Loss (megawatts)	Number of Customers Affected ¹	Restoration Date/Time
January							
1/4/2005	Westar Energy (SPP)	6:00 p.m.	Eastern one third of the state of Kansas	Winter Storm	200	211,000	1/14/05, 12:00 p.m.
1/5/2005	Ohio Edison/First Energy (ECAR)	4:00 p.m.	Akron and Mansfield areas	Ice Storm	250	246,990	1/13/05, 6:00 p.m.
1/5/2005	American Electric Power (ECAR)	9:10 p.m.	Indiana Michigan Region - Muncie District	Winter Ice Storm	545	114,791	1/16/05, 11:00 a.m.
1/7/2005	Pacific Gas and Electric Company (WECC)	1:00 p.m.	Northern California	Winter Storm	120	442,000	1/10/05, 8:00 a.m.
1/19/05	Puerto Rico Electric Power Authority (PR)	9:17 a.m.	Island of Puerto Rico	Voltage Reduction	209	N/A	1/19/05, 9:27 a.m.
1/23/2005	Puerto Rico Electric Power Authority (PR)	10:42 a.m.	Island of Puerto Rico	Voltage Reduction	140	N/A	1/23/05, 11:24 a.m.
1/24/2005	Puerto Rico Electric Power Authority (PR)	6:38 a.m.	Island of Puerto Rico	Voltage Reduction/Shed Load	225	70,717	1/24/05, 6:50 a.m.
1/24/2005	Puerto Rico Electric Power Authority (PR)	12:27 p.m.	Island of Puerto Rico	Voltage Reduction/Shed Load	385	N/A	1/24/05, 12:34 p.m.
1/29/2005	Southern Company (SERC)	10:00 a.m.	Parts of Alabama and Georgia	Ice Storm	100	150,000	1/31/05, 10:00 a.m.
1/29/2005	Georgia System Operations Corporation (GSOC) (SERC)	4:00 p.m.	Georgia	Ice Storm	65 to 100	82,000	1/30/05, 3:00 p.m.
February							
2/1/2005	Puerto Rico Electric Power Authority (PR)	5:78 p.m.	Island of Puerto Rico	Voltage Reduction	460	N/A	2/01/05, 6:01 p.m.
2/15/2005	Puerto Rico Electric Power Authority (PR)	1:12 p.m.	Island of Puerto Rico	Generator Loss	380	N/A	2/15/05 1:30 p.m.
2/16/2005	Puerto Rico Electric Power Authority (PR)	1:26 p.m.	Island of Puerto Rico	Load Shedding	325	139,438	2/16/05, 1:43 p.m.
2/18/2005	Puerto Rico Electric Power Authority (PR)	8:16 a.m.	Island of Puerto Rico	Generator Loss/Voltage Reduction	648	372,288	2/18/05, 8:41 a.m.
2/24/2005	Puerto Rico Electric Power Authority (PR)	12:58 a.m.	Island of Puerto Rico	Voltage Reduction	200	N/A	2/24/05, 1:05 a.m.
March							
3/8/2005	Progress Energy - Carolinas (SERC)	11:00 a.m.	Eastern and Central North Carolina	Wind Storms	180	51,600	3/08/05, 3:00 p.m.
April							
4/1/2005	Cleveland Electric Illuminating Company/First Energy Corporation (ECAR)	Midnight	Cleveland, Ohio and northeast Ohio	Winter Storm	N/A	211,000	4/06/05, 12:00 p.m.
4/22/2005	Crockett Cogeneration (WECC)	3:51 p.m.	San Francisco Bay area, California	Lightning Strike	126	PG&E	4/22/05, 3:59 p.m.
4/23/2005	Puerto Rico Electric Power Authority (PR)	4:22 a.m.	Island of Puerto Rico	Voltage Reduction	345	116,552	4/23/05, 4:48 a.m.
4/23/2005	Cleveland Electric Illuminating Company/First Energy Corporation (ECAR)	6:00 a.m.	Cleveland, Ohio and northeast Ohio	Winter Storm	N/A	150,000	4/27/05, 6:00 a.m.
4/30/2005	Southern Company (SERC)	8:00 a.m.	Alabama and Georgia	Thunderstorms	100	51,808	4/30/05, 10:00 a.m.
May							
5/8/2005	CenterPoint Energy Houston Electric (ERCOT)	3:00 p.m.	Houston, Texas and surrounding suburban areas	Strong Thunderstorms	672	243,000	5/08/05, 10:00 p.m.
5/11/2005	Puerto Rico Electric Power Authority (PR)	7:00 p.m.	Island of Puerto Rico	Voltage Reduction	529	N/A	5/11/05, 8:31 p.m.
5/29/2005	CenterPoint Energy Houston Electric (ERCOT)	8:00 p.m.	Houston, Texas and surrounding suburban areas	Strong Thunderstorms	328	123,000	5/30/05, 2:30 a.m.
June							

6/5/2005 DTE Energy (ECAR)	2:00 p.m.	Southeast Michigan	Strong Thunderstorm/High Winds	1,826	201,580	6/10/05, 7:30 a.m.
6/5/2005 Consumers Energy (ECAR)	2:00 p.m.	Portions of the southern 2/3 of Michigan's Lower Peninsula	Strong Thunderstorm	50-60	105,000	6/07/05, 6:00 p.m.
6/6/2005 New York State Electric and Gas (NPCC)	12:00 p.m.	Central/Eastern New York state	Strong Thunderstorms	N/A	65,000	6/08/05, 6:00 p.m.

**Table B.1. Major Disturbances and Unusual Occurrences, Year-to-Date through August 2005
(Continued)**

Date	Utility/Power Pool (NERC Region)	Time	Area Affected	Type of Disturbance	Loss (megawatts)	Customers Affected ¹	Restoration Date/Time
6/6/2005	PECO Energy (MAAC)	4:43 p.m.	Bucks, Montgomery, Delaware, Chester, Philadelphia counties, Pennsylvania	Strong Thunderstorm	N/A	143,000	6/07/05, 10:00 p.m.
6/8/2005	Xcel Energy - Northern States Power (MRO)	4:00 a.m.	Minnesota	Strong Thunderstorm	50-100	300,000	6/10/05, 10:00 p.m.
6/20/2005	Puerto Rico Electric Power Authority (PR)	11:16 a.m.	Island of Puerto Rico	Voltage Reduction	35	600,000	6/20/05, 5:15 pm.
6/24/2005	Commonwealth Edison Company (MAIN)	8:37 p.m.	Chicago, Illinois	Transmission Equipment Failure	350	51,500	6/24/05, 11:06 p.m.
6/28/2005	Public Service Company of Colorado (WECC)	11:30 a.m.	Denver Metropolitan area of Colorado	Fuel Supply Deficiency/Coal Rail Transportation Interruption	0	0	Ongoing
6/29/2005	DTE Energy (ECAR)	4:30 p.m.	Southeast Michigan	Strong Thunderstorm/High Winds	1,000	114,711	7/04/05, 11:30 p.m.
July							
7/01/05	Southwestern Public Service Company (ERCOT)	N/A	Texas, New Mexico, Oklahoma, Kansas	Fuel Supply - Deficiency Coal Rail Transportation Interruption	0	0	Ongoing
7/2/2005	Puerto Rico Electric Power Authority (PR)	1:27 a.m.	Island of Puerto Rico	Load Shedding	226	132,290	7/02/05, 1:46 a.m.
7/5/2005	Entergy Corporation (SPP)	9:00 p.m.	Southeast and Northeast, Louisiana including the New Orleans area	Tropical Storm Cindy	unknown	287,000	7/06/05, 9:00 a.m.
7/10/2005	Southern Company (SERC)	8:00 a.m.	Alabama, Mississippi, Florida, Georgia	Hurricane Dennis	45	228,102	7/12/05, 8:00 a.m.
7/10/2005	Alabama Electric Coop Inc. (SERC)	12:53 p.m.	Southwest Alabama and Western Panhandle of Florida	Hurricane Dennis	51.2	50,000	7/11/05, 5:33 pm.
7/21/2005	Southern California Edison Company (WECC)	2:39 p.m.	Southern California	CA ISO Stage 2 - Initiated interruption of Air Conditioner Cycling Interruptible Load Program	197	128,050	7/21/05, 5:30 p.m.

7/22/2005 Southern California Edison Company (WECC)	1:55 p.m.	Southern California	CA ISO Stage 2 - Initiated interruption of Air Conditioner Cycling Interruptible Load	206	133,900	7/22/05, 6:00 p.m.
7/23/2005 Potomac Electric Power Company (Pepco) (MAAC)	1:02 a.m.	Washington, DC, Montgomery and Prince Georges Counties, Maryland	Severe Thunderstorms	N/A	55,118	7/26/05, 10:50 a.m.
7/27/2005 PECO Energy (MAAC)	4:50 p.m.	Bucks, Chester, Delaware, Montgomery and Philadelphia counties, Pennsylvania	Severe Thunderstorms	N/A	93,837	7/28/05, 9:24 p.m.
7/27/2005 Potomac Electric Power Company (Pepco) (MAAC)	5:50 p.m.	Washington, DC, Montgomery and Prince Georges Counties, Maryland	Severe Thunderstorm	N/A	64,943	7/30/05, 9:07 p.m.
7/27/2005 Baltimore Gas and Electric Company (MAAC)	6:00 p.m.	Baltimore County, Anne Arundel County and Prince Georges County, Maryland	Severe Thunderstorms	N/A	87,600	7/29/05, 4:00 p.m.
7/28/2005 Duke Energy Company/Duke Power Control Area (SERC)	8:30 p.m.	Piedmont North and South Carolina	Severe Thunderstorm	300	52,200	8/01/05, 5:00 p.m.
August						
8/1/2005 Puerto Rico Electric Power Authority (PR)	10:28 a.m.	Island of Puerto Rico	Voltage Reduction/Load Shed	175	47,116	8/01/05, 10:47 a.m.
8/8/2005 Crockett Cogeneration (WECC)	12:38 p.m.	San Francisco Bay area, California	Plant Tripped	240 PG&E		8/08/05, 4:00 p.m.

Table B.1. Major Disturbances and Unusual Occurrences, Year-to-Date through August 2005 (Continued)

Date	Utility/Power Pool (NERC Region)	Time	Area Affected	Type of Disturbance	Loss (megawatts)	Number of Customers Affected ¹	Restoration Date/Time
8/19/2005	Puerto Rico Electric Power Authority (PR)	7:37 p.m.	Island of Puerto Rico	Voltage Reduction/Load Shed	259	71,864	8/19/05, 8:15 p.m.
8/20/2005	American Electric Power -AEP West (ECAR)	2:15 p.m.	Northwest Arkansas	Severe Thunderstorms	650	50,797	8/20/05, 4:21 p.m.
8/25/2005	California ISO (WECC)	3:50 p.m.	Southern California	CAISO determined - there was inadequate electric resources to serve load. Public appeals and a shedding of interruptible and firm load occurred.	-		8/25/05, 8:00 p.m.
8/25/2005	Southern California Edison Company (WECC)	3:51 p.m.	Southern California	CAISO initiated interruption of interruptible and firm load due to declaration of Transmission Emergency in Southern California	864	409,000	8/25/05, 8:00 p.m.
8/29/2005	Louisiana Generating, LLC (SPP)	1:10 a.m.	East and Southeast Louisiana	Hurricane Katrina	300	143,000	8/29/05, 12:42 p.m.

8/29/2005 Entergy Corporation (SPP)	6:00 a.m.	Buras, Louisiana	Hurricane Katrina	N/A	1.1 million and 100,000 gas customers	8/30/05, 6:00 a.m.
8/29/2005 Progress Energy Florida (FRCC)	7:10 a.m.	Counties of Alachua, Bay, Citrus, Columbia, Dixie, Franklin, Gilchrist, Gulf, Hamilton, Hardee, Hernando, Highlands, Jefferson, Lafayette, Lake, Levy, Madison, Marion, Orange, Osceola, Pasco, Pinellas, Polk, Seminole, Sumter, Suwannee, Taylor, Volusia and Wakulla	Hurricane Katrina disrupted fuel supply in the Gulf of Mexico. Public appeals for conservation were issued.	0	0	9/07/05, 3:00 p.m.
8/29/2005 Southern Company (SERC)	7:10 a.m.	Alabama, Florida, Mississippi	Hurricane Katrina	5,120	512,049	8/29/05, 10:00 p.m.
8/29/2005 Tennessee Valley Authority (SERC)	3:50 p.m.	Alabama, Mississippi, Tennessee	Hurricane Katrina	118.5	323,529	9/10/05, 12:00 p.m.
8/29/2005 City of Lakeland (FRCC)	5:00 p.m.	City of Lakeland, Florida	Hurricane Katrina disrupted normal gas allotment through natural gas pipelines (FGT & Gulf stream). Public appeals for conservation were issued.	0	0	9/08/05, 12:01 a.m.
8/31/2005 Seminole Electric Cooperative (FRCC)	4:00 p.m.	Member Service Territory is located in the West coast of Florida from Tallahassee to Fort Myers	Hurricane Katrina disrupted normal gas supplies distribution. Public appeals for conservation were issued.	0	0	9/12/05, 8:00 a.m.

¹ = Estimated Values.

Note: North American Electric Reliability Council region acronyms are defined in the glossary.

Source: Form EIA-417, "Electric Emergency Incident and Disturbance Report."